The Rivah Digest

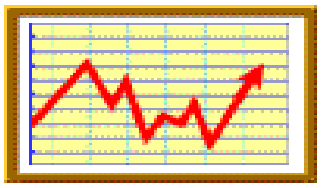
A quarterly newsletter of the Rappahannock Area Health District

RAHD Rappahannock Area Health District
CARING FOR A HEALTHY COMMUNITY

May 2005

Syndromic Surveillance

Rappahannock Area Health District and Mary Washington Hospital participate in bio-surveillance program



The Virginia Department of Health has partnered with The Johns Hopkins University Applied Physics Laboratory (APL) and the National Capitol Region to enhance disease surveillance through the ESSENCE program. ESSENCE, led by APL, is an electronic system developed to provide an early warning of an unusual occurrence of certain health conditions. ESSENCE stands for Electronic Surveillance System for the Early Notification of Community-Based Epidemics. In Virginia, the health department will use the system to monitor information collected daily from hospital emergency rooms in Northern Virginia and Hampton Roads. Rappahannock Area Health District and Mary Washington Hospital will participate with Northern Virginia.

The goal is to enhance the early detection of any potential disease outbreak, bioterrorism event or other public health emergency. The system involves the daily submission of 'chief complaint logs' from the participating hospitals. They include complaints, such as respiratory, gastrointestinal or feverish illnesses that are grouped by categories. Hospital and individual identifiers are removed before data are submitted to the ESSENCE system for analysis to protect patient confidentiality.

Public health officials will be able to monitor the data on a daily basis. When an increase in reports of a particular syndrome or category are identified, the health department can then further investigate the reasons why such a change has occurred. VDH has been conducting enhanced surveillance of hospital emergency room activity in Northern Virginia and Hampton Roads since the day after the September 11, 2001 attacks, but it has all been collected manually. ESSENCE will automate the data collection process and much of the analysis. Automating this surveillance will enhance the system, save a significant amount of time and resources and may lead to a more rapid detection of certain health conditions.

Medical Explorer Post started in Fredericksburg

The RAHD in conjunction with the Rappahannock Medical Reserve Corps just started a Medical Explorer Post for high school-aged students interested in health or medical careers. The group of 15 students, Post 608, meets on the second Thursday of each month.

The Post has already held briefings on foodborne outbreaks, the Community Emergency Response Team program, and the Medical Reserve Corps structure. The next few sessions will include the field of radiology, a tour of a hospital emergency department, a tour of the state laboratory, and election of officers.

MEDICAL EXPLORER POST 608 RAPPAHANNOCK

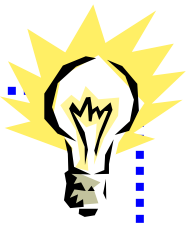
Health Departments

- *Rappahannock District 540-899-4797*
- *Caroline 804-633-5465*
- *King George 540-775-3111*
- *Fredericksburg 540-899-4142*
- *Spotsylvania 540-582-7155*
- *Stafford 540-659-3101*

After hours reporting:

- *Communicable Disease & Outbreak Reporting 540-850-1250*
- *Environmental Pager 540-899-8601*
- *Rabies Pager weekends only 540-372-2562*
- *New Toll-free number for public health and Bioterrorism events* ***866-531-3068***

Adults are never too old for vaccines!

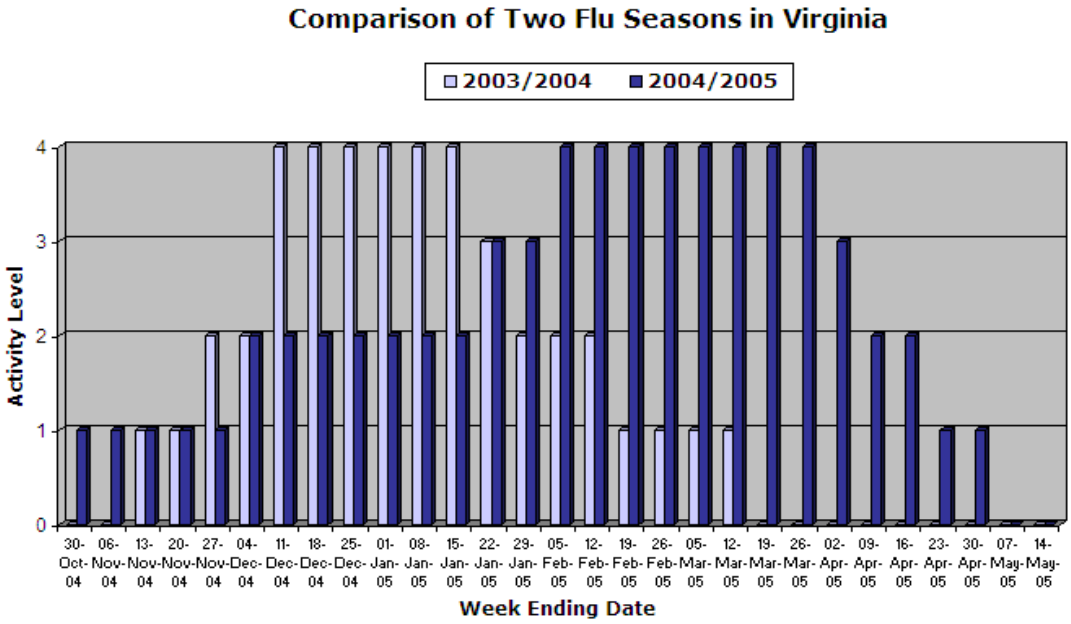


An adult is never too old for vaccines! Now that the weather is warmer with more outside activities, home improvements, and gardening we need to focus on adults and their Td status. A Td should not be something you give when you step on a nail. Almost all reported cases from 1980-2000 were in persons who have either never been vaccinated, or who completed the primary series but have not had booster in the preceding 10 years. The most resent studies also state intravenous drug users, self-piercing and self-performed tattoos to be a risk factor for tetanus. Vaccines that are recommended for adults are not widely used. In the fall, the patient is evaluated for flu and pneumonia vaccines but tetanus is overlooked. Each time an adult patient presents to their medical provider, the patient should be evaluated for the need for vaccines, Td, Hepatitis B, Hepatitis A, Flu, and pneumonia. Let us prevent disease now with the use of vaccine- preventable vaccine for all adults.

If you have a client traveling out of the country and you are unable to provide the vaccines, you may refer them to the Travel Clinic at Fredericksburg Health Department. Call 540-899-4142 for an appointment.

Influenza 2004-2005 Season Recap

After a late, but long flu season, activity has begun to decline in Virginia. Flu season peaked with widespread activity during the first week in February and remained at this level until the last week in March. CDC has antigenically characterized 721 influenza viruses collected by U.S. laboratories since October 1, 2004: 6 influenza A(H1) viruses, 493 influenza A(H3N2) viruses, and 222 influenza B viruses. The hemagglutinin proteins of the influenza A(H1) viruses were similar antigenically to the hemagglutinin of the vaccine strain A/New Caledonia/20/99. Two hundred four (41%) of the 493 influenza A(H3N2) isolates were characterized as antigenically similar to A/Wyoming/3/2003, which is the A/Fujian/411/2002-like (H3N2) component of the 2004-05 influenza vaccine, and 289 (59%) were characterized as A/California/7/2004 (H3N2)-like. One hundred forty-five of the influenza B viruses isolated this season belong to the B/Yamagata lineage and were characterized as B/Shanghai/361/2002-like, which is the influenza B component recommended for the 2004-05 influenza vaccine, and 24 showed somewhat reduced titers to ferret antisera produced against B/Shanghai/361/2002. Fifty-three influenza B viruses belong to the B/Victoria lineage.



WNV Task Force takes a bite into vector-borne disease control

The WNV Task Force kicked off the 2005 Arboviral Season on April 21st. This year's message, "Flip it, Dump it, Kick it", is aimed to educate citizens to help reduce mosquito breeding grounds in their own backyard. Task Force activities include increased mosquito surveillance and testing, increased education, active human surveillance and vector-borne control. RAHD will not be testing dead birds this season, but citizens can report dead crows, jays and raptors to the health department for surveillance activities.

In addition, the Task Force will expand their educational message to tick-borne disease prevention and control. While RAHD has never reported a positive human WNV case, Lyme Disease, Rocky Mountain Spotted Fever (RMSF) and Ehrlichiosis are three reportable tick-borne diseases that do affect our community. Prevention measures are similar to WNV and include personal protection, environmental control measures, education and reporting by medical providers.

Protective Measures Include:

- Avoid mosquitoes- stay indoors when mosquitoes are biting; during dusk and early evening hours.
- Wear long, loose and light-colored clothing.
- Turn over containers in your yard where water collects, such as old tires, potted plant trays, buckets and toys.
- Eliminate standing water on tarps or flat roofs.
- Clean roof gutters and downspout screens to prevent water accumulation.
- Use DEET containing insect repellent (<50 percent DEET for adults, < 30 percent for children).
- When hiking, stay in the center of the path to avoid ticks on brush and tuck your shirt into your pants and pants into your socks to keep ticks outside of your clothes.
- Perform tick checks after spending time outdoors.
- Properly remove ticks with fine point tweezers– grasp the tick close to the skin and gently pull the tick straight out. Wash your hands and disinfect the bite area.

2004 Vector-Borne Disease

Lyme	18*
RMSF	14*
Ehrlichiosis	2
WNV	0

* suspected cases, not all met case definition for surveillance to CDC

For more information, contact:
Rachel Wade, WNV Environmental Specialist
Rachel.Wade@vdh.virginia.gov 540-899-4142 x 224

2005 West Nile Virus Human Testing

Recommended Criteria for Suspect Case of WNV

Any adult or pediatric patient admitted to the hospital with viral encephalitis with or without associated muscle weakness:

- Fever > 38 ^{o}C or 100 ^{o}F, and
- Altered mental status (altered level of consciousness, agitation, lethargy) and/or other evidence of cortical involvement (e.g., focal neurologic findings, seizures), and
- CSF pleocytosis with predominant lymphocytes and/or elevated protein and a negative gram stain and culture, and/or
- Muscle weakness (especially flaccid paralysis) confirmed by neurologic exam or by EMG.

The state laboratory, DCLS, will only test cases that meet the above criteria. Tests include a microsphere based immunologic assay (MIA) IgM and ELISA IgG on sera and CSF and RT-PCR on post mortem tissue or CSF. A plaque reduction neutralization test (PRNT) is done for confirmation of positive results. There are specific procedures for collecting specimens for WNV testing, and an **Encephalitis Case Report** form must be completed and included with a specimen to DCLS. The health department and MWH Microbiology Laboratory has these forms and can assist.

Please report suspect cases to Leah Dewey, RAHD Epidemiologist @ 540-850-1250

Donald Stern, MD, MPH — Director of Public Health
Leah H. Dewey, MPH — District Epidemiologist
Joe Saitta, Ed.D — Emergency Planner
Kay Jones, RNC, MBA — Nurse Manager

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Please visit us on the web @
www.vdh.virginia.gov

Selected Reportable Diseases in RAHD - January - March 2005 vs 2004*

	2005		2004		Diff	% change	2004 State	
DISEASE	(n)	rate[†]	(n)	rate[†]	(n)	(%)	(n)	rate[†]
AIDS	2	0.7	3	1.1	-0.3	-33.3%	107	1.5
Campylobacter	5	1.9	4	1.5	0.3	25.0%	88	1.2
Chickenpox	10	3.7	1	0.4	9.0	900.0%	-	-
Chlamydia Trachomatis	183	68.3	158	59.0	0.2	15.8%	5578	76.5
Giardiasis	6	2.2	6	2.2	0.0	0.0%	2326	31.9
Gonorrhea	56	20.9	40	14.9	0.4	40.0%	71	1.0
HIV Infection	1	0.4	8	3.0	-0.9	-87.5%	191	2.6
Haemophilus Influenza Infection	6	2.2	0	0	-	-	-	-
Hepatitis A	1	0.4	2	0.7	-0.5	-50.0%	22	0.3
Hepatitis B (Acute)	2	0.7	3	1.1	-0.3	-33.3%	37	0.5
Hepatitis C (Acute)	2	0.7	31*	11.6*	-0.9	-93.5%	-	-
Lead - elevated blood levels	0	0.0	0	0	-	-	113	1.5
Lyme Disease	4	1.5	4	1.5	0.0	0.0%	-	-
Meningococcal Infection	1	0.4	0	0.0	-	-	3	0.0
Pertussis	3	1.1	1	0.4	2.0	200.0%	26	0.4
Rocky Mountain Spotted Fever	1	0.4	0	0	-	-	-	-
Streptococcus pneumoniae	0	0.0	3	1.1	-1.0	-100.0%	-	-
Salmonellosis	3	1.1	3	1.1	0.0	0.0%	135	1.9
Shigellosis	1	0.4	1	0.4	0.0	0.0%	22	0.3
Streptococcal Disease, Group A, invasive	4	1.5	6	2.2	-0.3	-33.3%	-	-
Syphilis, Total Early (primary, secondary, early latent)	0	0.0	0		-	-	23	0.3
Tuberculosis (Mycobacteria)	2	0.7	2	0.7	0.0	0.0%	28	0.4

[±] Data is preliminary.

[†] Rate based on 2002 US Census (267,748 for Rappahannock; 7,293,542 for VA)

* Includes Acute and Chronic Hepatitis